



Australian Government

MSTAT4020 Prepare stencils and screens for textile printing

Release: 1

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Modification History

Release 1. Unit Code and Application changed. Element 1 removed. Foundation Skills field populated. Range of Conditions removed with relevant information moved to Performance or Knowledge Evidence. Assessment Requirements clarified with generic foundation skills statements moved to appropriate section and duplication with Performance Criteria removed. Supersedes and is equivalent to MSTTD4002 Prepare stencils and screens for textile printing.

Application

This unit describes the skills and knowledge required to interpret design specifications and use stencil or silk-screen printing techniques to produce designs and artwork for textile printing on garments, textile products, furnishing fabrics, accessories or public art commissions. Screen printing involves the use of manual techniques, tools and equipment.

This unit applies to individuals producing work based on a pre-determined design. They use judgement and problem-solving to select and troubleshoot processes to achieve quality outcomes.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Apparel and Textile Production

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Establish requirements for stencils and screens	1.1 Analyse design specifications and confirm stencil requirements with appropriate personnel 1.2 Identify desired effects of screen printing and select appropriate conversion technique to achieve required design outcome
2. Prepare stencils and screens	2.1 Set up workstation, tools and equipment according to specifications for work

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	2.2 Prepare and label layouts and select media to prepare stencils 2.3 Complete stencils and check against design 2.4 Select screen types and mesh for appropriate substrates 2.5 Prepare screens for stencil process and check against quality standards 2.6 Expose stencil masters according to industry specifications 2.7 Develop screen images, dry and finish to meet specifications 2.8 Apply screen preparation according to workplace procedures
3. Test screens and stencil quality	3.1 Print strike off and check against design specifications to ensure quality standards are met 3.2 Identify screen and stencil faults and determine causes 3.3 Apply required modifications to screens using appropriate techniques, processes or materials 3.4 Complete screens and prepare for production processes 3.5 Examine outcomes and check against specifications with appropriate personnel

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret design specifications
- Oral communication skills to discussion requirements and production issues with others
- Numeracy skills to work with basic mathematical operations and measurement concepts.

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

Supersedes and is equivalent to MSTTD4002 Prepare stencils and screens for textile printing.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTAT4020 Prepare stencils and screens for textile printing

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- prepare at least two stencils and screens for use with textile printing, with work to include:
 - use of at least one of the following conversion techniques:
 - basic stencils
 - hand cut and hand drawn stencils
 - photosensitive stencils
 - autographic
 - digitally generated stencils
 - multi-coloured separations.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- safe work practices and procedures and use of personal protective equipment
- characteristics of stencil and screen types, including:
 - timber, steel and aluminium framed
 - butt, mitre, nailed, glued, screwed and welded
 - rectangle, rotary, hat and flat bed
- specific design and printing practices
- design types, including:
 - banners
 - border designs
 - engineered designs
 - placement prints
 - repeat patterns
- printing processes and practices
- different types of screens and meshes, including:

- mesh types:
 - material
 - nylon
 - polyester
 - metal
- colour:
 - white
 - yellow
 - red
- size
- mono or multi-filament
- screen preparation, including:
 - checking for mesh tension
 - degreasing
 - haze removing
 - registration marks applied
 - coating
 - different types of medium
 - ruby lithe
 - designers opaque
 - ink
 - black wax crayon
 - digital prints
 - drafting film
 - pen
- conversion techniques
- stencil and printing techniques
- fault-finding procedures, typical fault conditions and how to rectify, including:
 - inaccurate repeat measurements
 - incorrect exposure time used
 - incorrectly stretched screen mesh
 - insufficient print paste used
 - off printing
 - poor quality colour separations
 - poorly developed image
 - poorly registered artwork/separations
 - stencil opacity insufficient
 - uneven screen coating
 - warped screen frames
 - wet coating trough causing pinholes

- recording and reporting practices stencil and screen-printing operations.
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Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - design specifications
 - stencils and screen-printing materials, tools and equipment
 - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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